FOR MYSORE STATE

Public (1954) Department.

RT SERIES.

G.O. NO. 384

384

Dated 17/7/54

21/7/54
Supdt

[Despatch Abstract.]

Community Projects - South Kanara area - Block I - Communic
Construction of a foot bridge at Yekkaru in
Jeppinamogru village - Sanctioned by the Project Exec
Officer Mangalore - Papers recorded.

Report to accompany the estimate for "the construction of a Foo Bridge 4'-0" widthh" at YEKKUR in the Jeppinamugru at Kankanady."

Estimate amount Rs. ~~1800~~ 1900/-

The above estimate is proposed for the construction of a Foot Bridge 4'-0" width at YEKKUR in Jeppinamugru. At present, the school going children studying in nearby the school find it very difficult especial during the rainy season to cross this stream which will swell up duri floods. To the villagers to take their commodities to the outside market during the rainy season, the above proposed foot bridge is a great help. The proposed foot bridge is situated at Kankanady at about 1½ miles from the main road crossing the ~~great~~ Govt. Agriculture Department Paddy breeding centre at Kankanady. This bridge will connect about 3 to 4 villages in the surrounding area.

The construction of the bridge is made as simple as possible ta king into consideration of the best materials available near the site The foundation has been taken about 5'-0" depth from the bed as no hard strata is met with at closer depth. The dimension of the founda tion for the abutments which is Random Rubble in C.M.1:4 is taken as 7'-0" x 5'-0" x 1'-6"and for the pier 9'-0" x 3'-6" x 1'-6" and over the foundation concrete, the abutment width has been taken as 4'-0" t a Ht. of 2'-0". The 2nd footing of thenfoundation is 3'-9" x 1'-6" F For the abutment, the bottom width has been taken as 3'-6" and the top ~~work~~ as 2'-0" with batter in the rear. The Ht. of abutment will be 6'-6" below the girders. Cut water has been provided for the pier. Ov the masonry abutment, 2 Nos. of ~~I~~ beam of section 7" x 4½" x 3/8 wil be provided with bed plate of 0'-7" x 0'-7" with necessary holding down bolts to fix it firmly to the masonry below. These I beams have been taken from the old bridge work on the Navur Surpady Road which has been dismantled and I beams of the same has been cut to the requir length and repainted for the above work. A country wood of runner of 0'-3" x 0'-2" will be fixed on the top of the girders to take the C.W. deck planks of 0'-2" thick above it. Wooden posts of 0'-3" x 0'-4" x 2 size will be fixed at 4'-0" intervals on top of decking so as to take two rows of hand rails running on the sides of the above foot bridge. Necessary masonry steps have been provided on both sides of the foot

bridge. Rough stone revetment as provided in the enclosed plan will be provided on both banks and the streams so as to prevent the erosion of the sides. A lump sum has been provided in the estimate for tarring the wood work and other contingencies that may arisefor conveying of the I beams to the site. The rates provided in the above estimate are based on the current schedule of rates and if the work is approved, the same will be executed under the supervision of the Community Project itself.

A/K Ramakrishnan
16/3/59

Supervisor,

C.P.(S.K), Mangalore.

Name of work — Construction of a 4 feet Foot Bridge at Pekkuri in Jeppiaamguree at Kanthanadi

Calculation sheet of the design of I beam

Clear span. —— 2 spans of 11'-0" each.
overall width. 24'-0"
Effective span. 26'-0"

Dead load due to wooden decking = 31 cft × 50 lb = 1550 lb/rft
Live load. - - - = 24'×4'-0"×80 lb = 7680 "
self wt. of 2 Nos. of I beams = 24×23×2 = 1104 "
wt. of hand rails, posts &c. 30 "
Total. 10364 "

∴ Load on one beam. $\frac{10364}{2}$ = 5182 lb/rft
say 5.2 tons

The safe distributed loads in tons, as per the B.S.S. beams for a span of 22' } 1.03 tons.

But, the present beam is a Second hand one & the section 17"×4½" for which safe load is 3.4 tons hence beam adopted.

Design for the deck planks:-
Clear span. 3'-0" Assume a thickness of 2" planks

Dead weight of planks 3'-0" × 1'-0" × $\frac{1}{6}$ × 80 = 25 lb / □"
Extra for wooden curb, &c. for 1'-0" length. } = 6 lb
Live load at 80 lb/sq' — 3'×1'×80 = 240
Total. 271 lb say 250 lb.

Stiffness formula: — $w = 150 \frac{Ld^3}{L^2}$

$d^3 = \frac{280 \times 3 \times 3}{150 \times 12} = 1.4$.

$d = 1.117$.

Hence the thickness of 2" provided is quite safe.

P.T.R. Ramakrishnan
Supervisor. 15/5/54.
C.E. (S.K.).

DETAILED ESTIMATE.

384,306—24-10-51. C.F. 150 (1½)

South Kanara — Taluk Mangalore.

Village and Survey Kankanady — Date and cost of original construction

Name and number of work:- Construction of a Foot Bridge 4'-0" wide at Jekk in Kankanady Village in Jeppina Padav — Date and cost of last repairs

Details of work.	Number.	Measurement in feet. Length.	Breadth.	Depth.	Area or contents.	Total quantity of each description of work.
I. Earthwork excavation for foundation, filling in basement and sides complying with standard specification No 20-B in all soils within initial lead and lift.						
for the foundation of the abutment in right bank	1	7'-0"	5'-0"	8.5	298 ~~295~~	
— do. for the pier —	1	9'-0"	3'-6"	5.0	158	
— do. for the left abutment	1	7'-0"	5'-0"	10.5	368	
Extras.					176	
				Total	1000 cft	say 1000
II. Cement concrete 1:5:10 using 1½" size of hard broken granite stones						
for the foundation of the abutments	1×2	7'-0"	5'-0"	1'-6"	105	
—do.— for the pier	1	9'-0"	3'-6"	1'-6"	47	
Extras for the steps on both sides	1×2	4'-6"	3'-6"	0'-4"	11	
		Extras			7	
				Total	170 cft	for say 175
III. Random Rubble masonry in C.M. 1:4 —						
for the 1st footing of the abutment foundation	1×2	6'-0"	4'-0"	2'-0"	96	
—do. 1st footing of the pier.	1	8'-0"	2'-6"	2'-0"	40	
for the 2nd footing of the abutments.	1×2	5'-9"	3'-9"	1'-6"	65	
—do. 2nd footing of the pier.	1	5'-9"	2'-3"	1'-6"	19	
~~for the cut water~~	~~1×2~~	~~2'-3"~~	~~1'-3"~~	~~1'-6"~~	~~4~~	not necessary below G.L.
for the abutments Superstructure.	1×2	5'-6"	$\frac{3'-6"+2'-0"}{2}$ ×	6'-6"	197	
do. — for the pier	1	5'-6"	2'-0"	6'-6"	72	
for the cut waters	1×2	$\frac{2'-0"}{2}$	1'-0"	6'-6"	13	
Backing for the girders.	1×2	5'-6"	1'-0"	1'-2"	13	
for the 1st step on both sides.	1×2	4'-0"	3'-6"	0'-9"	21	
" 2nd step	1×2	4'-0"	2'-3"	0'-9"	14	
" 3rd step	1×2	4'-0"	1'-0"	0'-9"	6	
			Total		556 cft	for say 57

Details of work.	Number.	Measurement in feet. Length.	Breadth.	Depth.	Area or contents.	Total quantity of each description of work.
carrying the dismantled I beam of Rige 0'-11" x 4½" x 3/8" 2 Nos. from Nawar Supply Road to the work site, repainting the same, cutting it to the required Rige and providing additional bed plate of Rige 0'-7" x 0'-7" x 3/8" and fixing with holding down bolts Complete.	2 Nos.				2 Nos.	2 Nos.
Carrying wood wrought & set up:-						
For the horizontal runners along the upstream on top.	1x2	26'-0"	0'-3"	0'-2"	2.08	
Decking planks ..	1	23'-0"	4'-0"	0'-2"	15.66	
Extra decking planks for fixing the struts	1x8	3'-0"	1'-0"	0'-2"	4.00	
Posts - - - -	2x8	3'-0"	0'-4"	0'-3"	4.00	
Struts - -	2x8	2'-9"	0'-3"	0'-2"	1.63	
Extras for overlaps &c. -	-	-	-	-	1.54	
			Total		50.00 Cft or Rft	50 Cft or Rft
Supplying & fixing 1" dia black pipes for hand rails.						
Hand rails	4x1	28'-0"	-	-	112 Rft.	112 Rft
Rough stone dry packing for aprons & revetments:-						
Up stream side Left & Rt. bank top width	1x2	25'-0"	1'-6"	1'-6"	113	
-do.- revetment ..	1x2	25'-0"	6'-0"	1'-0"	300	
Down stream left Rt bank top width.	1x2	10'-0"	1'-6"	1'-6"	45	
" Revetment. ..	1x2	10'-0"	6'-0"	1'-0"	120	
All round apron ..	1	22'-0"	10'-0"	1'-0"	220	
Deduct	-	-	-	-	2	
			Total		800 Cft or Rft	800 Cft or Rft
For unforseen items such as bailing out water, taking 2 coats of ~~Tar paint~~ & other contingencies that may require for the carrying of the beams to site					L.S.	L.S.
For petty expenditure & contingencies.					L.S.	L.S.

Checked
24/5/12.

A.M.R. Ramakrishna
Sub E

P.W.D. V-39—57,603—4-4-51.

Data sheet to accompany the estimate for Construction of a foot Bridge 4'-0" wide at Yekkur in Kankanady Village in Jeppin Padapu

Quantity.	Description of work.	Rate. Rs.	A.	P.	Per	Amount. Rs.	A.	P.	Total.
I	Earthwork excavation for foundation, filling in sides of basement in hard gravelly soil :—								
	S.J. No. 20-B —	21	6	0	100 c/ft.	21	6	0	or Rs 21-6-0
I	Cement Concrete 1:5:10 in hard broken stone 1½" size.	100	c/ft.						
92 c/ft.	1½" size as per S.J. 33.C	23	0	0	100 c/ft	21	2	7	
"	Lead for stone from Padav quarry 2 miles M.R. +2 furlongs by Head load :—								
	2 M.M.R. — 11-11-6								
	2 fur. head load 6-14-0								
	18-9-6	18	9	6	100 c/ft.	17	1	8	
46 c/ft	Sands as per S.J. 36-A.	2	8	0	100 c/ft	1	2	5	
"	Lead for Sand from river Netravathi in 3 m. by M.R. — 16-6-6								
	2 furlong head load 5-9-0								
	Total 21-15-6	21	15	6	100 c/ft	10	1	8	
46/5 c/ft	Cement Cost. —	87	8	0	2½ c/ft	32	3	2	
"	Cement Lead from Mangalore 3 miles M.R. + 2 furlongs head load :—								
	3 miles M.R. 16-6-6								
	2 furlongs head load 5-9-0								
	Total 21-15-6	21	15	6	100 c/ft	2	0	4	
	Labour.								
½ No.	Mason 2nd class	2	12	0	each	1	6	0	
5 Nos.	Man Mazdoor. —	1	8	0	"	7	8	0	
4 Nos.	woman "	0	12	0	"	3	4	0	
16 c/ft	Mixing mortar.	4	8	0	100 c/ft	2	1	1	
	Sundries	—	.	.		0	5	1	
	Total					98	0	0	or Rs 98-0-0

sheet to accompany the estimate for_____

Description of work.	Rate.			Per	Amount.			Total.
	RS.	A.	P.		RS.	A.	P.	
Cement Mortar 1:4	100			cft.				
Sand as above. —	2	8	0	100 cft	2	8	0	✓
Lead for Sand as above.	21	15	6	100 cft	21	15	6	✓
Cement as above.	87	8	0	25 cft	87	8	0	✓
Lead for cement as above	21	15	6	100 cft	5	7	10	✓
for mixing mortar —	4	8	0	100 cft	4	8	0	✓
Sundries					..	..	8	
	Total.				122	0	0	✓
Random Rubble Masonry in C.M. 1:4					100			cft
Rough stone as per S.J. 22-A. ..	16	0	0	100 cft	17	9	7	✓
Lead for stone as above.	18	9	6	100 cft	20	7	3	✓
cement mortar 1:4 as above.	122	0	0	100 cft	41	7	7	✓
Labour.								
Mason 2nd class.	2	12	0	each	13	12	0	✓
Man Mazdoor —	1	8	0	"	6	0	0	✓
woman "	0	12	0	"	3	4	2	
Sundries					0	3	7	
	Total				182	8	2	✓

Conveying the old I beam from Nawar of size 10" x 4½" x 23'-0" of sharing with bed plate of size 0-7" x 0-7" x ⅝" for anchoring in abutment complete. Wt. of I beam of 23'-0" in length @ 25 lbs per ft is 575 lbs.
∴ The wt. for 2 beams 575 x 2 = 1150 lbs

Conveying from Nawar Sarpady a distance of 7½ miles M.R + 2 furlongs head load.
for S.M.M.R for 1000 lbs 52-6 ✓
∴ for 1150 lbs. 5-9-2 ✓
∴ for 24 half miles @ 3-9/half mile for 1000 lbs 6-7-6 ✓
12-0-8 ✓

Description of work.	Rate.			Per	Amount.			Total.
	RS.	A.	P.		RS.	A.	P.	
B.F. 12-0-8 ✓								
2 furlongs haul load @ 4 Man Mazdoor @ 1-8-0 each	6-0-0							
	18-0-8	18	0	8	2 beams	18	0	8 ✓
for cutting the two beams to required sizes.						3	0	0 ✓
Wt. of 1 plate 0'-7"×0'-7" 3/8" — 3.75 ℔.								
∴ 4 plates = 3.75×4 = 15 ℔								
The cost of plates @ 0-2-10 per ℔	0	2	10	℔	2	10	6 ✓	
for drilling 8 holes of 1/2" dia (viz) 2 holes for each plate.	—	—	—	-	1	8	0 ✓	
for providing & fixing in position with holding down bolts & painting 2 coats with anti corrosive paint &c. of the Shade beam.	—	—		L S	9	12	10 ✓	
					35	0	0	✓ orrect R35/-
Country wood brought & put up								1 2/4
C.W. Scantlings large as per S.D. 47B.	7	4	0	1 cft	7	4	0 ✓	7-0-0
Carpenter 1st class.	3	6	0	each	1	11	0	1-11-0
Man Mazdoor	1	8	0	"	1	8	0	0-6-0
								9-1-0
								0-9-0
Sundries including spikes + bolts + fixing them in position & also conveying the timber to site &c.	—	—		L S	0	12	0	9-10-0
					11	0	0	R11/-
Supplying & fixing 1" dia. black pipe for hand rails					1	8	0	Local rate
Rough stone dry packing for apron & cut-off.	—	100		cft.				
Rough stone (including spalls for filling & wedging as per S.D. 28.	1	6	0	100 cft	17	9	7 ✓	
					17	9	7 ✓	

P.W.D. V–39– 57,603—4-4-51.

Data sheet to accompany the estimate for _____

Quantity.	Description of work.	Rate. Rs.	A.	P.	Per	Amount. Rs.	A.	P.	Total
	B.F.	-	-	-		17	9	7	✓
110 cft.	Lead for stone as above 3	18	9	6	100 cft.	20	7	3	✓
	Labour								
1 No.	woodcutter as per S.D 16	3	0	0	each	3	0	0	✓
3 Nos	Man Mazdoor "	1	8	0	"	4	8	0	✓
2 Nos	woman "	0	12	0	"	1	8	0	
	Sundries					0	9	2	
	Total					47	8	0	Or Rs

Certified That the lead and other information furnished are correct to the best of my Knowledge.

Checked
[illegible]
24/5/52.

[illegible]
Supervisor
C.A (S.K)

Name of work:- "Constructing of a foot bridge 4'-0" wide at in Jaffnamunai at Kankesanthurai"

ESTIMATE FORM—Abstract.

Item number. (1)	Quantity. (2)	Description of work. (3)	Rate. (4)	Per (5)	Amount. (6)
			Rs.		Rs.
	1000	Earth work [illegible] for foundations [illegible] Lifting in basement and trenches Complying with standard specification No 20 - Earth and gravelly Earth.	[illegible]	1000	21
	1.5	Cement Concrete 1:5:10 using 1½ inch [illegible] of hand broken [illegible]	98-0-0	100	17
	575	Random Rubble masonry in C.M. 1:4.	103-0-0	100	592
	2 No	Conveying & placing in position 1 I beam of size 8-0" x 4½" x 3/8" 2 No from Nawalapitiya Railway station to the work site, including the Railway Carriage to the Railway station at Nawalapitiya & providing rollers & necessary mechanical means back Hire of Rails 6'-7" x 0'-7" x 3/8" & fixing the I beam with [illegible]			35
		[illegible]	35-0-0	[illegible]	~~70~~
	50 sft	Covering wood work with [illegible]	11-0-0	1 sft	350
	42 Rft	Supplying & fixing 1" [illegible] for hand rails.	1-8-0	1 Rft	168
	800	[illegible] for apron & [illegible]	47-8-0	100	280
	L.S.	[illegible] including cost of [illegible]			92
		[illegible]			37
		[illegible]	L.S.		~~129~~
	L.S.	[illegible]	L.S.		90
					1900

M.R. Ramanathan

P W.D. V-13—Imsn—65,826—3-6-40 (S)

ESTIMATE FORM—Abstract.

Item number. (1)	Quantity. (2)	Description of work (3)	Rate. (4)	Per (5)	Amount. (6)	Total. (7)
			Rs.		Rs.	Rs

Technically Sanctioned
for Rs 1000/ Rupees One thousand
& nine hundred only.
(For Cost Estimate)

Assistant Engineer
Pulangadi
24/5/14

[illegible] Rs 58/ (Rupees fifty)
(Rupees [illegible])
[illegible] Rs. [illegible]/-
[illegible] for ~~1475/-~~ 475/-
[illegible] Rs 1425/-
[illegible] Rs. (1425/-)
[illegible] Rupees [illegible]
[illegible] Rs. [illegible]

15 Agri (DU)

Memo No 94178 Agri DU 57-1 dt 15-7-57

Sub:- Cls. South Kanara Area. Block I - Communications - Construction of a foot bridge at Yekkaru in Jeppelinamogaru Village - Sanctioned estimate

Ref- From the DEO Mangalore Ref. C. No 2929/57 B. dated 29-6-57.

It is observed from the copy of the approved estimate received with the Ref. cited, that a rate of Rs 7 11/- per cu. feet has been allowed for Country wood wrought and put up. This rate is permissible only when large scantlings are to be used. Inasmuch as wood work in this case is limited to that required for the deck, posts and Struts, all not beyond 4 feet long, a rate of Rs 9-10-0 only at Rs 7/- for scantlings Re 1-11-0 for half a Carpenter and as 6/- for a fourth of mazdoor and as 9/- for spikes nails and Conveyance, is permissible. The DEO is requested to see that payment is made at this rate only.

N.F.

Sub:- Cls. S.Kanara Area- Block I- Communicahions- Construchion of a foot bridge at Yekkar in Jeppinamogru Village- Sanchioned estimate

Ref:- From the PEO. Mangalore ny. Cno. 2929/54B dated 29.6.54

Please see the proceedings of the PEO. Mangalore cited, sanctioning an expenditure of Rs 1425/- out of an estimated cost of Rs 1900/- for Constructing a foot bridge at Yekkar in Jeppinamogru Village. (Block I). The work, being not listed in the approved works all programme, is reported to have been approved for execution by the Project Advisory Committee.

The estimate has been technically approved by the AE(Cl). But the rate adopted for the item of "Country wood wrought and put up" has been calculated as for large beams, whereas the scantlings required on the work are small, being required only for the deck, and railing posts, not exceeding 4'-0" in length and a section of 3"x4". Hence against a rate of Rs 11/- adopted per cu.feet, only a rate of Rs 9/10/- may be permitted. The PEO. may be told accordingly

A draft memo is put up for Approval

After issue, the papers may be recorded as a Rt. Go. with a Call book entry for 9 months to watch the Completion of the work

10-7-54 17/7/54

Entered in Register of Works

G.O. Rt. 384 dated

Abstract:- Cls. S.K. Area- Block I- Communicahions- Construchion of a foot bridge at Yekkar in Jeppinamogru Village- Sanchioned by the PEO Mangalore. Papers recorded

17/7/54

Pub (RDP VI) Depot.

Extracts from the call Book. 3.

112

1. S.no.

2. Date of entry in the register. 21/7/54.

3. Subject. CPS - S.R. area. Bl I - Comms - Construction of a foot bridge at Yekkani Jeppalamegu Village - Sanctioned by the P.E.O. Mangalore Papers Recorded.

4. Old current no. 94178 RDP VI/54. (H)

5. No & date of Govt. order etc. authorising the entry } G.O.Rt 384 Pub dt 17/7/54.

6. Date when further action is to be taken } 20/4/55.

7. No & date of new current 3040

13
20/4/55

4 (p1 above)

Pub (RDP VII) Dept

This is a case in which the P.E.O. has sanctioned the work. Hence, no report need be awaited from him. May be lodged & added to the dossal G.O. Rt. No. 384, Public, dt 17/7/54

p14 (A)

(A)

25/4/55

2
2/4/55

25/4/55